

REMARKS

Reconsideration and allowance of this application are respectfully requested in light of the above amendments and the following remarks.

Claims 27 and 30 have been amended, with support being provided for example in paragraphs [0015], [0037], [0039], and [0069] of the original specification. More specifically, paragraph [0015] discloses encoding and modulating FBSC information and control data, such as allocation information indicating a destination of user data, and paragraph [0069] discloses transmitting control data and FBSC information simultaneously. Paragraphs [0037] and [0039] disclose that a mobile station that has received control data and FBSC information transmitted from a base station transmits an ACK or NACK, according to an error detection result of user data, using a subcarrier specified by the FBSC information. Consequently, the FBSC information and allocation information indicating a destination of user data are transmitted simultaneously and correspond to the same user data. (It should be noted that references herein to the specification and drawings are for illustrative purposes only and are not intended to limit the scope of the invention to the referenced embodiments.)

Claims 27-32 were rejected, under 35 USC §103(a), as being unpatentable over Li et al. (US 2002/0119781) in view of Parantainen et al. (US 7,092,373) and Kage (US 5,463,672). To the extent these rejections may be deemed applicable to the amended claims herein, the Applicant respectfully traverses as follows.

Claim 27 now defines a base station that simultaneously transmits: (1) first allocation information indicating resources allocated for ACK/NACK signals that a mobile station returns to the base station in response to receiving user data and (2) second allocation information

indicating the destination of the user data transmitted by the base station. The first and second allocation information correspond to the same user data. This subject matter provides an advantage of improving data throughput, for the reasons discussed below.

In a case that the first and second allocation information are not transmitted simultaneously, if the second allocation alone is lost, the mobile station will be unable to acquire the user data and, therefore, a retransmission will occur. On the other hand, if the first allocation information alone is lost, the mobile station may acquire user data but, nevertheless, will be unable to send an ACK signal to the base station and, therefore, a retransmission will occur. Thus, whether the first allocation information alone or the second allocation information alone is lost, a retransmission will occur. And if the first and second allocation information are transmitted at separate times, the loss of allocation information will occur more often than if they were transmitted simultaneously, due to the greater number of transmissions. As a result, with separate transmissions of the first and second allocation information, the number of retransmissions will increase and throughput will decrease. The instant claimed invention overcomes this problem by simultaneously transmitting the first and second allocation information.

The Final Rejection acknowledges that Li and Parantainen do not disclose the claimed subject matter of simultaneously transmitting: (1) first allocation information, indicating resources allocated for ACK/NACK signals that a mobile station returns to a base station in response to receiving user data and (2) second allocation information, indicating the destination of the user data transmitted by the base station (see Final Rejection page 3, last sentence of third paragraph).

In an attempt to overcome this deficiency, the Final Rejection proposes that Kage discloses a base station that constantly broadcasts its base station identifier on a control channel (see page 3, second to last paragraph).

However, as acknowledged in the Final Rejection, Kage discloses a base station that broadcasts its own identifier. In contrast, instant claim 27 recites a base station that transmits the identifier of a destination of user data transmitted by the base station. A base station that transmits its own identifier does not teach or suggest a base station that transmits the identifier of a destination of user data, which is also transmitted by the base station.

Accordingly, the Applicant submits that the teachings of Li, Parantainen and Kage, considered individually or in combination, do not render obvious the subject matter now defined by claim 27. Independent claim 30 now similarly recites the above-mentioned subject matter distinguishing apparatus claim 27 from the applied references, but with respect to a method. Therefore, allowance of claims 27 and 30 and all claims dependent therefrom is warranted.

To promote a better understanding of the patentable distinctions of the Applicant's claimed subject matter over the applied references, the Applicant provides the following further remarks.

Claims 27 and 30 now recite that modulated first allocation information and modulated second allocation information correspond to the same user data and are simultaneously transmitted.

By contrast, Kage discloses a constant transmission of a base station identifier that identifies the base station's zone of operation (see Kage col. 5, lines 19-23). Accordingly, Kage's

base station identifier and the Applicant's claimed allocation information indicating a destination of user data are completely different.

For example, if Kage's base station identifier were substituted for the claimed allocation information indicating a destination of user data, such a configuration could not achieve an object of the Applicant's claimed communication system. This is because each of Kage's base station identifiers are assigned to one base station (see Kage col. 3, lines 51-53). Therefore, even if the base station identifier indicates a destination of user data, the base station identifier does not have a function of distinguishing a plurality of mobile stations, and, accordingly, a mobile station cannot distinguish whether or not user data transmitted from the base station is destined to this mobile station or another mobile station. In this way, Kage does not disclose or suggest the Applicant's claimed subject matter of allocation information indicating a destination of user data.

Moreover, Kage discloses transmitting a base station identifier constantly. However, the term "constantly" in Kage does not mean continuously over time, because Kage's communication system employs a time division multiple access (TDMA) scheme (see Kage, col. 5, line 19). In such a TDMA scheme, constantly transmitting ID information means repeatedly transmitting ID information on a regular basis and does not mean transmitting ID information continuously over time. Accordingly, Kage does not disclose transmitting the base station identifier and other data simultaneously, much less disclose or suggest that modulated first allocation information and modulated second allocation information correspond to the same user data, as recited in Applicant's claims 27 and 30.

In view of the above, it is submitted that this application is in condition for allowance and a notice to that effect is respectfully solicited.

If any issues remain which may best be resolved through a telephone communication, the Examiner is requested to telephone the undersigned at the local Washington, D.C. telephone number listed below.

Respectfully submitted,

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Date: May 8, 2009
JEL/DWW/att

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